

ABSTRACT OF DISCLOSURE

A ball grid array integrated circuit package is manufactured by mounting a semiconductor die, to a first surface of a substrate such that bumps on the semiconductor die are electrically connected to conductive traces of the substrate. At least one collapsible spacer is mounted to at least one of a heat spreader, the semiconductor die and the substrate. The heat spreader is fixed to the at least one of the first surface of the substrate and the semiconductor die such that the at least one collapsible spacer is disposed therebetween. A ball grid array is formed on a second surface of the substrate, bumps of the ball grid array being electrically connected to the conductive traces and the integrated circuit package is singulated.